REMARKS

The Office Action mailed December 30, 2009, has been carefully reviewed and the following remarks have been made in consequence thereof.

Claims 1, 2, 4-9, 12, 14-16, 19-22, 24, and 27-33 are pending in this application. Claims 1-9, 12-16, 18-22, 24, and 27-33 stand rejected. Claims 1, 12, 16, 24, 27, and 28 are amended and Claims 3 and 18 are canceled. Claims 10, 11, 17, 23, 25, and 26 have been previously withdrawn and Claim 13 has been previously canceled.

The rejection of Claims 1, 2, 4-9, 12, 14-16, 19-22, 24, and 27-33 under 35 U.S.C. § 103 as being unpatentable over Pekar (U.S. Pat. No. 5,638,565) in view of Evans (U.S. Pat. No. 4,864,671) is respectfully traversed.

Claim 1 recites a method of fabricating a cellular cushion, wherein the method comprises "injecting material into a mold in an injection molding process to form a cushion first layer that is formed integrally with a plurality of hollow cells that extend outward from the first layer, such that each of the plurality of cells extends only from a root defined at the first layer to a tip, and such that the plurality of cells extending from the first layer are coupled together in flow communication via a plurality of channels aligned substantially within the same plane and extend between adjacent hollow cells, and wherein the plurality of hollow cells are configured to expand only radially outward towards each as an operating pressure within the cells is increased . . . coupling a second layer to the first layer . . . coupling an injection stem in flow communication to the plurality of hollow cells to enable an operating pressure within only the plurality of hollow cells extending from the same layer to be changed."

Pekar describe an inflatable multi-layer body support cushion (10) fabricated from a plurality of layers (11 and 13). Each layer is formed from two thermoplastic sheets (40 and 42) and (40'and 42') that are sealed such that vertically-oriented cells (12) are defined. More specifically, Pekar does not describe nor suggest a cushion having a plurality of cells that extend outward from only one of the base layers, and from a root defined at that layer to a tip, but rather, Pekar describes that the cells (12) each include upper and lower chamber portions (14 and 14').

Specifically, the upper chamber portions (14) are defined by the first layer (11) and the lower chamber portions (14') are defined by the second layer (13). The upper chamber portions (14) are coupled together in flow communication by conduits (20) that extend through layer (11) between unsealed portions of sheets (40 and 42). Notably, Pekar does not describe nor suggest that the conduits (20) are aligned substantially within the same plane, but rather Pekar describes that the *conduits (20) include portions that are contoured and extend along an inner surface of each chamber upper portion (14)* and *other conduits (20') that are contoured and extend along an inner surface of each chamber lower portion (14').*

At least some of the upper and lower chambers (14 and 14') are coupled together in flow communication by a plurality of slits (22) formed in the neck portions (83) of at least some cells (12). Notably, at column 4, lines 1-5, Pekar describes that "[i]t is an important feature of this invention that there be a substantial differential in the horizontal volumetric flow rate of fluid through the conduits (20 and 20'), on the one hand, and the vertical flow rate of the fluid through the orifices or slits (22). In other words, the overall intralayer fluid flow rate and the overall interlayer flow rater are substantially different." Moreover, at Column 4, lines 62-67, Pekar describes that "each of conduits 20 and 20' has a *predetermined diameter to provide control of the fluid transfer to and from adjacent upper chambers 14 and lower chambers 14' of the cells . . . to thereby control the rates of fluid flow between each of the cells 12 of the cushion."* (emphasis added). Notably, Pekar does not describe nor suggest that the upper and lower chambers (14 and 14') are configured to expand only radially outward towards each other when an operating pressure within the cells is increased. Instead, the upper and lower chambers (14 and 14') expand only vertically when an operating pressure therein is increased.

Evans describes an inflatable cushion (12) that is coupled to a pump (14), a plurality of valves (16) connected to the pump (14), and microprocessor control means (18) that is coupled to the pump (14), the valves (16), and to a power supply (20). The cushion (12) includes a plurality of rows (28) or zones (29) of independently inflatable cells (30). A passageway (28) extends between cells (30) in each zone (29) such that cells (30) in that particular zone (29) may be inflated with a single source of air. Inflation of each zone (29) of cells (30) is controlled by independent pressurization conduits (40). At column 4, lines 25-35, Evans recites:

> [c]ells 30 are **attached** in sealing relationship to a bottom sheet 36, which is also preferably made of flexible rubber or polymeric material, to form a web 37 supporting cells 30. Manufacture of cushion 12 may be accomplished by molding a first member from rubber or polymeric material which forms the cells 30. Cells 30 can be injected molded, blow molded, molded with a male mold form or otherwise formed. **They can then be glued, heat bonded, or otherwise attached to sheet 36 to form the structure shown in FIG 1b.**

(emphasis added). Moreover, at column 4, lines 35-37, Evans recites that "[s]uch construction is conventional; one type of method is described in the patents to Graebe mentioned above." In addition, Evans recites at column 4, lines 45-48 that "[u]nlike cells 30 in earlier existing cushions, cells in cushions 12 of the present invention are preferably interconnected in rows 28 for inflation by a corresponding valve." As such, Evans does not describe nor suggest forming, *via an injection molding process*, a cushion layer that is formed integrally with a plurality of hollow cells that extend outward from a root defined at the layer to a tip, such that the plurality of cells are coupled together in flow communication. Rather, as recited above, Evans merely describes a conventional fabrication method in which a plurality of cells, which may be formed via injection molding, are attached to a separate bottom sheet, such that only the cells in the *same row* are coupled together in flow communication. Furthermore, Evans, like Pekar, fails to describe that the cells 30 expand only radially outward towards each other as the operating pressure with each cell (30) is increased.

Applicant respectfully submits that the Section 103 rejection of the presently pending claims is not a proper rejection. As is well established, the mere assertion that it would have been obvious to one of ordinary skill in the art to use an injection molding process, as taught by Evans, in the method of Pekar in order to facilitate the formation of a cellular cushion does not support a prima facia obvious rejection. Rather, each allegation of what would have been an obvious matter of design choice must always be supported by citation to some reference work recognized as standard in the pertinent art and the Applicant given the opportunity to challenge the correctness of the assertion or the notoriety or repute of the cited reference. Applicant has not been provided with the citation to any reference supporting the combination made in the rejection. Specifically, no combination of Pekar nor Evans, considered alone or in combination,

describes or suggests forming, via an injection molding process, a cushion first layer that is formed unitarily with a plurality of hollow cells that extend outward from the first layer and that are each coupled together in flow communication, such that the cells expand outwardly towards each other as the operating pressure within each cell is increased. The rejection, therefore, fails to provide the Applicant with a fair opportunity to respond to the rejection, and fails to provide the Applicant with the opportunity to challenge the correctness of the rejection.

Furthermore, as is well established, the mere fact that the prior art structure could be modified does not make such a modification obvious unless the prior art suggests the desirability of doing so. *See* In re Gordon, 221 U.S.P.Q.2d 1125 (Fed. Cir. 1984). Furthermore, the Federal Circuit has determined that:

> [i]t is impermissible to use the claimed invention as an instruction manual or "template" to piece together the teachings of the prior art so that the claimed invention is rendered obvious. This court has previously stated that "[o]ne cannot use hindsight reconstruction to pick and choose among isolated disclosures in the prior art to deprecate the claimed invention."

In re Fitch, 23 USPQ2d 1780, 1784 (Fed. Cir. 1992). Further, under Section 103, "it is impermissible . . . to pick and choose from any one reference only so much of it as will support a given position, to the exclusion of other parts necessary to the full appreciation of what such reference fairly suggests to one of ordinary skill in the art." In re Wesslau, 147 USPQ 391, 393 (CCPA 1965). Rather, there must be some suggestion, outside of Applicants' disclosure, in the prior art to combine such references, and a reasonable expectation of success must be both found in the prior art, and not based on Applicant's disclosure. In re Vaeck, 20 U.S.P.Q.2d 1436 (Fed. Cir. 1991). In the present case, neither a suggestion nor motivation to combine the cited art, nor any reasonable expectation of success has been shown.

Accordingly, since there is no teaching or suggestion in the cited art for the claimed combination, the Section 103 rejection appears to be based on a hindsight reconstruction in which isolated disclosures have been picked and chosen in an attempt to deprecate the present invention. Of course, such a combination is impermissible, and for this reason alone, Applicants

request that the Section 103 rejection of Claims 1, 2, 4-9, 12-16, 19-22, 24, and 27-33 be withdrawn.

Moreover, if art "teaches away" from a claimed invention, such a teaching supports the nonobviousness of the invention. U.S. v. Adams, 148 USPQ 479 (1966); Gillette Co. v. S.C. Johnson & Son, Inc., 16 USPQ2d 1923, 1927 (Fed. Cir. 1990). In light of this standard, it is respectfully submitted that the cited art, as a whole, is not suggestive of the presently claimed invention. Specifically, Applicant respectfully submits that no combination of Pekar and Evans describes or suggests forming, via an injection molding process, a cushion first layer that is formed integrally with a plurality of hollow cells that extend outward from only the first layer, such that the plurality of cells are each coupled together in flow communication, wherein the plurality of hollow are configured to expand only radially outward towards each other when an operating pressure within the cells is increased. As such, the presently pending claims are patentably distinguishable from the cited combination.

Moreover, Applicant respectfully submits that Evans teaches away from Pekar, and as such, further supports the nonobviousness of the invention. Specifically, Evans describes a cellular cushion in which cells are coupled to a *single layer* such that *only those cells in a specific row* are coupled together in flow communication, and Pekar describes a cellular cushion in which multiple layers are coupled together to form the cells which are all coupled together in flow communication. Applicant respectfully submits that one of ordinary skill in the art would not look to Evans to modify Pekar, as the invention of Evans is dependent upon only limited numbers of cells being coupled together in flow communication, rather than all of the cells being coupled together in flow communication.

In addition, no combination of Pekar and Evans describes nor suggests the claimed combination. As described above, no combination of Pekar and Evans describes nor suggests a method of fabricating a cellular cushion as is recited in Claim 1. Specifically, no combination of Pekar and Evans describes nor suggests injecting material into a mold in an injection molding process to form a cushion first layer that is formed integrally with a plurality of hollow cells that extend outward from the first layer, such that each of the plurality of cells extends only from a

root defined at the first layer to a tip, and such that the plurality of cells extending from the first layer are coupled together in flow communication via a plurality of channels aligned substantially within the same plane, wherein the plurality of hollow cells are configured to expand only radially outward towards each other when an operating pressure within the cells is increased. Rather, in contrast to the present invention, Pekar describes a cushion including a plurality of cells that are formed when a plurality of different layers are coupled together, and Evans describes a conventional fabrication method in which a plurality of cells are attached to a separate bottom sheet, wherein only a limited number of cells within the same row are coupled together in flow communication, such that a plurality of pressurization conduits coupled to a microprocessor can be used to control the fluid flow rate between different rows of cells. Accordingly, for at least the reasons set forth above, Applicants submit that Claim 1 is patentable over Pekar in view of Evans.

Furthermore, Pekar does not describe nor suggest that the cells (12) expand only radially outward towards each other as the operating pressure within each cell (12) is increased. Indeed, Pekar wholly fails to contemplate the outward expansion of the cells (12). Instead, at Column 3, lines 25-30, Pekar describes "[w]hen the cushion is inflated, as shown in FIGS. 1 and 3, the upper and lower surfaces of chambers 14 define the extent of the upper layer 11 . . . while the chambers 14' similarly define the lower layer 13 of the multi-laminar cushion." Accordingly, Pekar only describes the vertical expansion of the chambers (14) (14') and corresponding cells (12) and does not contemplate or otherwise suggest horizontal outward expansion of the cells.

Claims 2 and 4-9 depend from independent Claim 1. When the recitations of Claims 2 and 4-9 are considered in combination with the recitations of Claim 1, Applicant submits that dependent Claims 2 and 4-9 likewise are patentable over Pekar in view of Evans.

Claim 12 recites a method for fabricating a flexible cushion, wherein the method comprises "forming a plurality of hollow cells with an injection molding process . . . coupling the plurality of cells to a flexible base such that the hollow cells are coupled to and extend outward from only one layer within the base and are adapted to be expanded outwardly towards each other as an operating pressure within the plurality of cells is increased . . . coupling a

sealing layer to the flexible base such that the plurality of hollow cells are coupled together in flow communication with each other via a plurality of hollow channels and such that a plurality of fluid control devices defined by at least one of the base and the sealing layer extend between adjacent hollow cells, wherein the plurality of hollow channels are aligned substantially in the same plane and extend between adjacent hollow cells, and wherein each of the plurality of flow control devices is positioned against at least one of the hollow channels such that the plurality of fluid control devices defined between the base and the sealing layer selectively controll flow communication independently of the plurality of hollow cells."

No combination of Pekar and Evans describes nor suggests a method of fabricating a flexible cushion as is recited in Claim 12. Specifically, no combination of Pekar and Evans describes nor suggests coupling a plurality of hollow cells formed via an injection molding process to a base, such that the hollow cells are coupled to and extend outward from only one layer within the base, such that the cells are adapted to be expanded outwardly towards each other as an operating pressure within the plurality of cells is increased, in combination with coupling a sealing layer to the base such that the plurality of hollow cells are coupled together in flow communication with a plurality of hollow channels that are aligned substantially in the same plane and extend between adjacent hollow cells, wherein each of the plurality of flow control devices is positioned against at least one of the hollow channels such that the plurality of fluid control devices defined between the base and the sealing layer selectively control flow communication independently to each of the plurality of hollow cells.

Rather, in contrast to the present invention, Pekar describes a cushion including a plurality of cells that are formed when a plurality of different layers are coupled together, and wherein adjacent cells are coupled together via contoured conduits that are sized with a predetermined diameter that controls the fluid flow rate between the cells, and Evans describes a conventional fabrication method in which a plurality of cells are attached to a separate bottom sheet, wherein only a limited number of cells within the same row are coupled together in flow communication, such that a plurality of pressurization conduits coupled to a microprocessor can be used to control the fluid flow rate between different rows of cells. Both Pekar and Evans

wholly fail to contemplate a method for fabricating a flexible cushion having the flow control devices recited in claim 12.

Accordingly, for at least the reasons set forth above, Applicant submits that Claim 12 is patentable over Pekar in view of Evans.

Claims 14-16 and 19-22 depend from independent Claim 12. When the recitations of Claims 14-16 and 19-22 are considered in combination with the recitations of Claim 12, Applicant submits that dependent Claims 14-16 and 19-22 likewise are patentable over Pekar in view of Evans.

Claim 24 recites a method for fabricating an inflatable cushion, wherein the method comprises "forming a flexible base using an injection molding process such that a plurality of hollow cells formed integrally with the base each extend outwardly from a root defined at the base to a tip and such that the plurality of cells are coupled together in flow communication via a plurality of channels aligned substantially within the same plane, wherein the plurality of hollow channels extend between adjacent hollow cells . . . coupling a second layer to the base such that a plurality of fluid control devices defined by at least one of the base and the second layer are each positioned between adjacent hollow cells to selectively control flow communication independently to each of the plurality of hollow cells extending outward only from the base, wherein each of the plurality of flow control devices is positioned against at least one of the plurality of channels such that each of the plurality of flow control devices selectively controls flow communication independently to each of the plurality of hollow cells."

As described above, no combination of Pekar and Evans describes nor suggests a method of fabricating a cellular cushion as is recited in Claim 24. Specifically, no combination of Pekar and Evans describes nor suggests forming a flexible base using an injection molding process such that a plurality of hollow cells formed integrally with the base each extend outwardly from a root defined at the base to a tip and such that the plurality of cells are coupled together in flow communication via a plurality of channels aligned substantially within the same plane, in combination with coupling a second layer to the base such that a plurality of fluid control devices are each positioned between adjacent hollow cells to selectively control flow communication

independently to each of the plurality of hollow cells extending outward only from the base, wherein each of the plurality of flow control devices is positioned against at least one of the plurality of hollow channels such that each of the plurality of flow control devices controls flow communication independently to each of the plurality of hollow cells.

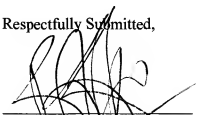
Rather, in contrast to the present invention, Pekar describes a cellular cushion that includes a plurality of layers that are stacked together and then bonded, and Evans describes a conventional fabrication method in which a plurality of cells are attached to a separate bottom sheet, wherein only a limited number of cells within the same row are coupled together in flow communication, such that a plurality of pressurization conduits coupled to a microprocessor can be used to control the fluid flow rate between different rows of cells. Both Pekar and Evans wholly fail to contemplate a method for fabricating a flexible cushion having the flow control devices recited in claim 24. Accordingly, for at least the reasons set forth above, Applicant submits that Claim 24 is patentable over Pekar in view of Evans.

Claims 27-33 depend from independent Claim 24. When the recitations of Claims 27-33 are considered in combination with the recitations of Claim 24, Applicant submits that dependent Claims 27-33 likewise are patentable over Pekar in view of Evans.

Accordingly, for at least the reasons set forth above, Applicant respectfully requests the Section 103 rejection of Claims 1,2, 4-9, 12-16, 19-22, 24, and 27-33 be withdrawn.

In view of the foregoing amendments and remarks, all the claims now active in this application are believed to be in condition for allowance. Reconsideration and favorable action is respectfully solicited.

Respectfully Submitted,



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